

Claims

1. An assembly, comprising:
a first tubular member comprising a pin member including external threads;
an external sleeve comprising:
a first box member at one end including internal threads coupled to the external threads of the pin member of the first tubular member; and
a second box member at another end including internal threads;
a second tubular member comprising a pin member including external threads coupled to the internal threads of the second box member of the external sleeve; and
an internal sleeve that receives the ends of the pin members of the first and second tubular members comprising an external flange that engages the ends of the pin members of the first and second tubular members and the external sleeve.
2. The assembly of claim 1, wherein the external flange of the internal sleeve defines an upper annular recess for receiving and mating with the first tubular member; and wherein the external flange of the internal sleeve further defines a lower annular recess for receiving and mating with the second tubular member.
3. A method for forming a wellbore casing, comprising:
positioning the assembly of claim 1 within a borehole that traverses a subterranean formation; and
radially expanding and plastically deforming the assembly within the borehole.
4. A method for forming a wellbore casing, comprising:
positioning the assembly of claim 2 within a borehole that traverses a subterranean formation; and
radially expanding and plastically deforming the assembly within the borehole.
5. An apparatus, comprising:
a wellbore that traverses a subterranean formation; and
a wellbore casing positioned within and coupled to the wellbore;
wherein the wellbore casing is coupled to the wellbore by a process comprising:
positioning the assembly of claim 1 within the wellbore; and
radially expanding and plastically deforming the assembly within the wellbore.

6. An apparatus, comprising:
 - a wellbore that traverses a subterranean formation; and
 - a wellbore casing positioned within and coupled to the wellbore;
 - wherein the wellbore casing is coupled to the wellbore by a process comprising:
 - positioning the assembly of claim 2 within the wellbore; and
 - radially expanding and plastically deforming the assembly within the wellbore.
7. A system for forming a wellbore casing, comprising:
 - means for positioning the assembly of claim 1 within a borehole that traverses a subterranean formation; and
 - means for radially expanding and plastically deforming the assembly within the borehole.
8. A system for forming a wellbore casing, comprising:
 - means for positioning the assembly of claim 2 within a borehole that traverses a subterranean formation; and
 - means for radially expanding and plastically deforming the assembly within the borehole.
9. An assembly, comprising:
 - a first tubular member comprising a pin member including external threads;
 - a second tubular member comprising a box member including internal threads coupled to the external threads of the pin member of the first tubular sleeve; and
 - an external sleeve coupled to and overlapping with the ends of the first and second tubular members;
 - wherein the external threads of the pin member of the first tubular member comprise a plurality of spaced apart groups of external threads; and wherein the internal threads of the box member of the second tubular member comprise a plurality of spaced apart groups of internal threads.
10. An assembly, comprising:
 - a first tubular member comprising a pin member including external threads;
 - a second tubular member comprising a box member including internal threads coupled to the external threads of the pin member of the first tubular sleeve; and
 - an external sleeve coupled to and overlapping with the ends of the first and second tubular members;

wherein the external surface end of the pin member of the first tubular member comprises a stress concentrator.

11. An assembly, comprising:
 - a first tubular member comprising a pin member including external threads;
 - a second tubular member comprising a box member including internal threads coupled to the external threads of the pin member of the first tubular sleeve; and
 - an external sleeve coupled to and overlapping with the ends of the first and second tubular members;wherein the external threads of the pin member of the first tubular member comprise a plurality of spaced apart groups of external threads; wherein the internal threads of the box member of the second tubular member comprise a plurality of spaced apart groups of internal threads; and wherein the external surface end of the pin member of the first tubular member comprises a stress concentrator.
12. A method for forming a wellbore casing, comprising:
 - positioning the assembly of claim 9 within a borehole that traverses a subterranean formation;
 - and
 - radially expanding and plastically deforming the assembly within the borehole.
13. A method for forming a wellbore casing, comprising:
 - positioning the assembly of claim 10 within a borehole that traverses a subterranean formation; and
 - radially expanding and plastically deforming the assembly within the borehole.
14. A method for forming a wellbore casing, comprising:
 - positioning the assembly of claim 11 within a borehole that traverses a subterranean formation; and
 - radially expanding and plastically deforming the assembly within the borehole.
15. An apparatus, comprising:
 - a wellbore that traverses a subterranean formation; and
 - a wellbore casing positioned within and coupled to the wellbore;wherein the wellbore casing is coupled to the wellbore by a process comprising:
 - positioning the assembly of claim 9 within the wellbore; and

radially expanding and plastically deforming the assembly within the wellbore.

16. An apparatus, comprising:
 - a wellbore that traverses a subterranean formation; and
 - a wellbore casing positioned within and coupled to the wellbore;
 - wherein the wellbore casing is coupled to the wellbore by a process comprising:
 - positioning the assembly of claim 10 within the wellbore; and
 - radially expanding and plastically deforming the assembly within the wellbore.
17. An apparatus, comprising:
 - a wellbore that traverses a subterranean formation; and
 - a wellbore casing positioned within and coupled to the wellbore;
 - wherein the wellbore casing is coupled to the wellbore by a process comprising:
 - positioning the assembly of claim 11 within the wellbore; and
 - radially expanding and plastically deforming the assembly within the wellbore.
18. A system for forming a wellbore casing, comprising:
 - means for positioning the assembly of claim 9 within a borehole that traverses a subterranean formation; and
 - means for radially expanding and plastically deforming the assembly within the borehole.
19. A system for forming a wellbore casing, comprising:
 - means for positioning the assembly of claim 10 within a borehole that traverses a subterranean formation; and
 - means for radially expanding and plastically deforming the assembly within the borehole.
20. A system for forming a wellbore casing, comprising:
 - means for positioning the assembly of claim 11 within a borehole that traverses a subterranean formation; and
 - means for radially expanding and plastically deforming the assembly within the borehole.
21. A method for providing a fluid tight seal between a first tubular member that is threadably coupled to a second tubular member, comprising:
 - providing a stress concentrator on at least one of the first and second tubular members;
 - and

radially expanding and plastically deforming the first and second tubular members.

22. A method for providing a fluid tight seal between a first tubular member comprising external threads and a second tubular member comprising internal threads, wherein the external threads of the first tubular member engage the internal threads of the second tubular member, comprising:
spacing apart the external and internal threads of the first and second tubular members into a plurality of groups; and
radially expanding and plastically deforming the first and second tubular members.

23. The assembly of claims 1 or 2, wherein at least one of: the interface between the first tubular member and the external sleeve, the interface between the second tubular member and the external sleeve, the interface between the first tubular member and the internal sleeve, and the interface between the second tubular member and the internal sleeve provide a fluid tight seal.

24. The method of claims 3 or 4, wherein, following the radial expansion and plastic deformation, at least one of: the interface between the first tubular member and the external sleeve, the interface between the second tubular member and the external sleeve, the interface between the first tubular member and the internal sleeve, and the interface between the second tubular member and the internal sleeve provide a fluid tight seal.

25. The apparatus of claims 5 or 6, wherein, following the radial expansion and plastic deformation, at least one of: the interface between the first tubular member and the external sleeve, the interface between the second tubular member and the external sleeve, the interface between the first tubular member and the internal sleeve, and the interface between the second tubular member and the internal sleeve provide a fluid tight seal.

26. The assembly of claims 9, 10, or 11, wherein, at least one of: the interface between the first tubular member and the second tubular member, the interface between the first tubular member and the external sleeve, and the interface between the second tubular member and the external provide a fluid tight seal.

27. The method of claims 12, 13, or 14, wherein, following the radial expansion and plastic deformation, at least one of: the interface between the first tubular member and the second

tubular member, the interface between the first tubular member and the external sleeve, and the interface between the second tubular member and the external provide a fluid tight seal.

28. The apparatus of claims 15, 16, or 17, wherein, following the radial expansion and plastic deformation, at least one of: the interface between the first tubular member and the second tubular member, the interface between the first tubular member and the external sleeve, and the interface between the second tubular member and the external provide a fluid tight seal.